

Work Order ID 150821

Thursday, September 08, 2016 8:32:23 AM

150821

Page 1

AMOD
DG

Item ID: D412-630-032DG Accept
Revision ID:
Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

N900040100

Setup Start ***NS1***
Stop ***NS2***

Start Date: 9/30/2016 Start Qty: 4.00 ***4***
Required Date: 10/31/2016 Req'd Qty: 4.00 ***4***

Cust Item ID:
Customer:

Reference:

DAS
21
9-89

SEP 08 2016

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN D412-630	O		Pick kit	DAS 6 9-89		OCT 03 2016			
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy D412-630 bluefile & type labels per PPP412-630-032 CHG004								
						OCT 18 2016			
110	Small Fab	0.00							
110	Small Fab								
Small Fab	Memo	0.16							
Small Fab	Assemble as per IIN D412-630								

ensure tension to retract step is 11 to 18 lbs before installing lockwire.
A/R MS20995C41 batch: M131371

4x DAS
27
9-89
OCT 18 2016

4x 16/10/18 DAS
20
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Item ID: D412-630-032DG Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green
Start Date: 9/30/2016 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 10/31/2016 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo ****ensure tension to retract step is 11 to 18 lbs **** Test fit on aircraft in Eng. lab. ENSURE STEP IS A LH: _____	0.00 0.01				(4)			DAS 38 9-89 OCT 12 2016
130 *130* Packaging Packaging	Pick Kit Memo	0.00 0.00							4 OCT 11 2016 DAS 6 9-89 DAS 28 9-89
140 *140* QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.02							yx DAS 27 9-89 OCT 18 2016

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only

Work Order: _____		DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐		
NCR No. _____		Scrap ☐		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐		
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐		
		Suspected Unapproved ☐		Large Fab ☐	Composite ☐	Supplier ☐			
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
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LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process								
Misidentified ☐	☐ Past Due	OTHER :							

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Page 3

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Packaging	0.00							
150									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-630-032 ENSURE STEP IS A RH: _____ Location;FG034								
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.07							
Quality Control									

4X DAS 28 9-89 DAS 27 9-89
OCT 18 2016

DAS 21 9-89 OCT 19 2016

DAS 21 9-89 OCT 19 2016
~~OCT 18 2016~~

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																							
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OTHER : _____																																																															

Picklist Print

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Page 1

Work Order ID: 150821

150821

Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV. A 05.11.21 NEW ISSUE EC
 IPP REV. B 05.12.19 updated pick list EC
 IPP REV. C 07.11.12 ecn 1019, nochg EC verified by: DD IPP Rev: D
 10.05.28 added route seq DD verf: EC IPP Rev: E 11.06.01
 removed qty 1 an310-4 EC verified by: DD IPP REV: F 16.06.23 AS PER
 IIN REV. O DD VERF: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN310-4		Purchased	No			110	Each	169.0000	1	4			
AN310-4									**			OCT 03 2016	DAS 6 9-89
Nut													

Location	Loc Qty	Loc Code
GA	25	
M127815	25	
OVER007	100	
M135442	100	
ST331	44	
M134955	44	

AN310-7		Purchased	No			110	Each	65.0000	1	4			
AN310-7									**			OCT 03 2016	DAS 6 9-89
Nut													

Location	Loc Qty	Loc Code
ST331	65	
124198	25	
m120124	40	

AN4C14		Purchased	No			110	Each	32.0000	1	4			
AN4C14									**			OCT 03 2016	DAS 6 9-89
Bolt													

Location	Loc Qty	Loc Code
ST344	32	
m131264	2	
m135084	30	

DQA: _____ Date: _____



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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
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Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

Picklist Print

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Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

AN4CH3 Purchased No 110 Each 83.0000 2 8

AN4CH3

Bolt

**

OCT 03 2016

DAS
6
9-89

Location

Loc Qty

Loc Code

ST346

83

M132124

8

M135482

75

D3443-041 Manufactured No

110 Each 1.0000 1 4

D3443-041

Strut Weldment Assembly

**

OCT 03 2016

DAS
6
9-89

Location

Loc Qty

Loc Code

ST525

1

144279

1

D3443-043 Manufactured No

110 Each 1.0000 1 4

D3443-043

Strut Weldment Assembly

**

OCT 03 2016

DAS
6
9-89

Location

Loc Qty

Loc Code

ST525

1

145453

1

D3443-9 Manufactured No

110 Each 115.0000 2 8

D3443-9

Pin

**

OCT 03 2016

DAS
6
9-89

Location

Loc Qty

Loc Code

ST037

115

145541

14

149322

101

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
										QC / QA Coordinator Approval															
Root Cause		FAULT CATEGORY																							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER : _____																						
Misidentified ☐	☐	Past Due ☐																							

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Page 3

Work Order ID: 150821

150821

Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

D3454-7 Manufactured No 110 Each 124.0000 2 8

D3454-7

Bushing

OCT 03 2016

DAS
6
9-89

Location	Loc Qty	Loc Code
ST037	22	
144631	22	
ST038A	102	
149466	102	

ST037	22	
144631	22	
ST038A	102	
149466	102	

D3455-1 Manufactured No 110 Each 373.0000 2 8

D3455-1

Spacer

OCT 03 2016

DAS
6
9-89

Location	Loc Qty	Loc Code
ST037	66	
147371	66	
ST038A	307	
149364	307	

ST037	66	
147371	66	
ST038A	307	
149364	307	

D3463-042 Manufactured No 110 Each 2.0000 1 4

D3463-042

Step Weldment Assembly

149384

OCT 03 2016

DAS
6
9-89

Location	Loc Qty	Loc Code
ST386	2	
144282	2	

ST386	2	
144282	2	

D3465-1 Manufactured No 110 Each 96.0000 1 4

D3465-1

Washer

OCT 03 2016

DAS
6
9-89

Location	Loc Qty	Loc Code
ST038	96	
148257	44	
149356	52	

ST038	96	
148257	44	
149356	52	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐						
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval				
Description Work Order Deviation			Disposition					
						Completed By		
						Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval					
Root Cause			FAULT CATEGORY					
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER :								

Picklist Print

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Page 4

Work Order ID: 150821

150821

Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

MS24665-227

Purchased

No

110

Each

105.0000

1

4

MS24665-227

Cotter Pin

OCT 02 2016
DAS
6
9-89

Location

Loc Qty

Loc Code

GA

16

111041

16

ST289

89

m127831

89

MS24665-302

Purchased

No

110

Each

29.0000

1

4

MS24665-302

Cotter Pin

135672

OCT 03 2016
DAS
6
9-89

Location

Loc Qty

Loc Code

GA

15

120521

15

ST288

14

m134738

14

AN310-4

Purchased

No

130

Each

169.0000

1

4

AN310-4

Nut

OCT 11 2016
DAS
28
9-89

Location

Loc Qty

Loc Code

GA

25

M127815

25

OVER007

100

M135442

100

ST331

44

M134955

44

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY						
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____						
Misidentified ☐	☐	Past Due	☐							

Picklist Print

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Work Order ID: 150821

150821

Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

AN310-5 Purchased No 130 Each 25.0000 2 8

AN310-5

Nut

**

DAS 28
6 9-89

Location

Loc Qty

Loc Code

ST331

25

m129706

9

m131320

16

135622
135672
135762

OCT 11 2016

DAS 27
9-89

AN3C5A Purchased No 130 Each 1,277.000 3 12

AN3C5A

Bolt

**

DAS 28
6 9-89

Location

Loc Qty

Loc Code

FG

5

122800

5

FP001

199

M134955

174

M135470

25

OVER002

800

M135297

600

M135442

200

ST350

273

M133234

1

M134676

272

12
135704

OCT 11 2016

DAS 27
9-89

AN44-C12 Purchased No 130 Each 12.0000 1 4

AN44-C12

Eye Bolt

**

DAS 28
6 9-89

Location

Loc Qty

Loc Code

FG

3

124829

3

ST339

9

M132879

4

M135297

5

DAS 27
9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																		
Description Work Order Deviation				Disposition																					
Root Cause		FAULT CATEGORY																							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :																						
Misidentified ☐	☐	Past Due ☐																							

Picklist Print

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Page 6

Work Order ID: 150821

150821

Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

AN4C15 Purchased No 130 Each 29.0000 1 4

AN4C15

Bolt

**

OCT 11 2016

DAS 28 9-89

Location Loc Qty Loc Code

OVER002

15

M135046

15

ST343

14

M1134567

14

AN5C11 Purchased No 130 Each 11.0000 1 4

AN5C11

BOLT

**

135722

OCT 11 2016

DAS 28 9-89

Location Loc Qty Loc Code

ST338

11

M134887

11

AN5C15 Purchased No 130 Each 14.0000 1 4

AN5C15

BOLT

**

135704 1/2

OCT 11 2016

DAS 28 9-89

Location Loc Qty Loc Code

ST337

14

M132317

4

M135297

10

D3454-1 Manufactured No 130 Each 58.0000 1 4

D3454-1

Bushing

**

OCT 11 2016

DAS 28 9-89

Location Loc Qty Loc Code

ST037

58

146027

10

149447

48

DAS 27 9-89

4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY							
Environment	☐		No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐		Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐		Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐		Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐		Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐		Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐		Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐		Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐		Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐		Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐		Manufacturing Process	☐							
Misidentified	☐		Past Due	☐							

Picklist Print

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Work Order ID: 150821

150821

Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

D3454-3

Manufactured No

130

Each

123.0000

2

8

D3454-3

Bushing

**

OCT 11 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

ST037

123

121223

22

149416

101

D3454-5

Manufactured No

130

Each

117.0000

2

8

D3454-5

Bushing

**

OCT 11 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

ST037

13

148239

13

ST038A

104

145571

3

149326

101

D3455-1

Manufactured No

130

Each

373.0000

4

16

D3455-1

Spacer

**

OCT 11 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

ST037

66

147371

66

ST038A

307

149364

307

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : ☐					

Picklist Print

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Work Order ID: 150821

150821

Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

D3455-3 Manufactured No 130 Each 117.0000 2 8

D3455-3

Spacer

**

DAS
27
9-89

Location

Loc Qty

Loc Code

ST037

95

146067

11

149459

84

ST038A

22

149312

22

D3462-042

Manufactured No

130 Each 2.0000 1 4

D3462-042

Bracket Assembly

**

DAS
27
9-89

Location

Loc Qty

Loc Code

ST038

2

146512

2

D3672-5

Manufactured No

130 Each 622.0000 1 4

D3672-5

Washer, Phenolic

**

DAS
27
9-89

Location

Loc Qty

Loc Code

FG

8

44679

8

ST049

234

35521

234

ST051A

380

50354

380

DAS
6
9-89
OCT 11 2016
AS
28
9-89

149441
DAS
28
9-89

OCT 11 2016
DAS
6
9-89
DAS
28
9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER :																					
Misidentified ☐	☐	Past Due ☐	☐																						

Picklist Print

Thursday, September 08, 2016 8:32:35 AM

Page 9

Work Order ID: 150821

150821

Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

MS21043-3

Purchased

No

130

Each

1,202.000

3

12

MS21043-3

Nut

**

OCT 11 2016

DAS
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG	80	
103691	80	
FP001	11	
m130673	11	
GA	235	
m133990	235	
ST302	807	
m135058	7	
m135442	400	
<u>m135544</u>	400	
ST304	69	
m131340	69	

MS24665-227

Purchased

No

130

Each

105.0000

21

48

MS24665-227

Cotter Pin

**

OCT 11 2016

DAS
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA	16	
111041	16	
ST289	89	
<u>m127831</u>	89	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Parent Item: D412-630-032DG

D412-630-032DG

Parent Item Name: Pilot/Co-Pilot Folding Step RH - Low, High & Float Gear, Drab Green

Start Date: 9/30/2016

Required Date: 10/31/2016

Start Qty: 4.00

Required Qty: 4.00

MS24665-229

Purchased

No

130

Each

71.0000

2

8

MS24665-229

Cotter Pin

**

OCT 11 2016

DAS 6 28
9-89 9-89

Location

Loc Qty

Loc Code

GA

5

118234

5

ST289

66

m132123

66

NAS1149C0363R

Purchased

No

130

Each

478.0000

7

28

NAS1149C0363R

Washer

**

135670

OCT 11 2016

DAS 6 28
9-89 9-89

Location

Loc Qty

Loc Code

FP001

265

114742

6

m133077

259

GA

213

m133077

213

NAS1149C0563R

Purchased

No

130

Each

422.0000

1

4

NAS1149C0563R

Washer

**

OCT 11 2016

DAS 6 28
9-89 9-89

Location

Loc Qty

Loc Code

ST265

422

m131697

422

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

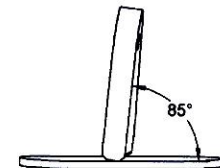
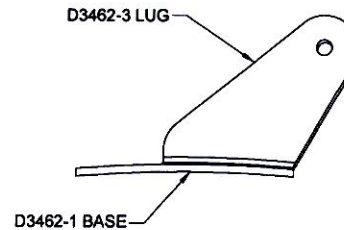
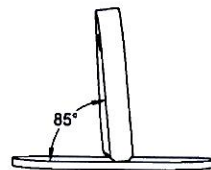
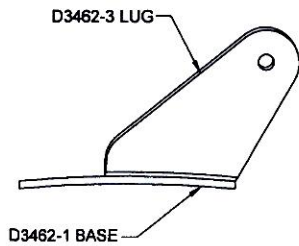
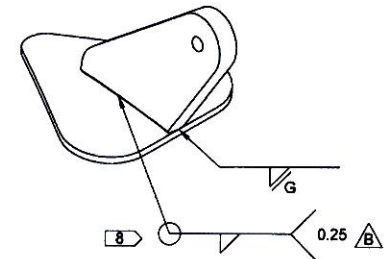
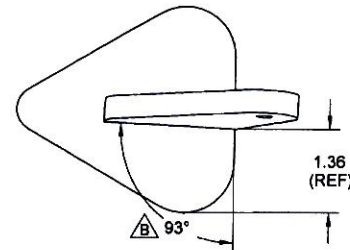
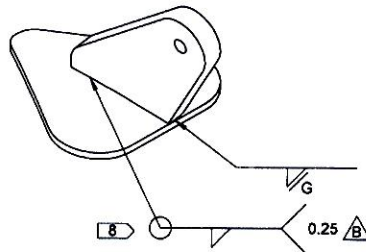
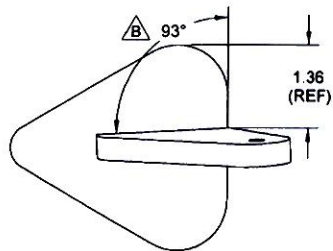
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OTHER : _____																									

Qty -031	Qty -032	Part Number	Description
X		D412-630-031	PILOT/CO-PILOT STEP, LH (FOLDING)
	X	D412-630-032	PILOT/CO-PILOT STEP, RH (FOLDING)
1	1	D3443-041	STRUT ASSEMBLY
1	1	D3443-043	STRUT ASSEMBLY
2	2	D3443-9	PIN
1	1	D3454-1	BUSHING
2	2	D3454-3	BUSHING
2	2	D3454-5	BUSHING
2	2	D3454-7	BUSHING
6	6	D3455-1	SPACER
2	2	D3455-3	SPACER
1		D3462-041	BRACKET ASSEMBLY
	1	D3462-042	BRACKET ASSEMBLY
1		D3463-041	STEP ASSEMBLY
	1	D3463-042	STEP ASSEMBLY
1	1	D3465-1	WASHER
1	1	D3672-5	WASHER (OR NAS1515H5)
2	2	AN310-4	NUT
2	2	AN310-5	NUT
1	1	AN310-7	NUT
2	2	AN3C5A	BOLT
1	1	AN3C6A	BOLT
1	1	AN44-C12	* EYEBOLT
1	1	AN4C14	BOLT
1	1	AN4C15	BOLT
2	2	AN4CH3	BOLT
1	1	AN5C11	BOLT
1	1	AN5C15	BOLT
7	7	NAS1149C0363R	WASHER (OR AN960C10)
1	1	NAS1149C0563R	WASHER (OR AN960C516)
3	3	MS21043-3	NUT
2	2	MS24665-227	COTTER PIN
2	2	MS24665-229	COTTER PIN
1	1	MS24665-302	COTTER PIN

* USE AN44-C12 EYEBOLT WHEN D412-630-031/-032 IS INSTALLED IN CONJUNCTION WITH D412-630-023/-024/-033/-034™ HELI-ACCESS-STEP.
SEE FIGURE 13B (D412-630-023/-024 KITS) OR FIGURE 16B (D412-630-033/-034 KITS).

REFERENCE ONLY



D3462-041 BRACKET ASSEMBLY

D3462-042 BRACKET ASSEMBLY

QTY	QTY	P/N	DESCRIPTION
-041	-042		
X		D3462-041	BRACKET ASSEMBLY
	X	D3462-042	BRACKET ASSEMBLY
1	1	D3462-1	BASE
1	1	D3462-3	LUG

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3462-041" OR "D3462-042" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.75 lbs (TYP)
- 8) WELDING: PER DART QSI 004

C	SHOW VIEWS OF D3462-041 & D3462-042, UPDATE DWG REASON: PRODUCTION FACILITY	DC	07.10.24
B	REVISE DIMENSIONS	RF	05.12.05
A	NEW ISSUE	RF	05.09.20
REV.	DESCRIPTION	BY	DATE
DESIGN	DE	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	MASS DC	DRAWING NO.	REV. C
CHECKED	AS	D3462	SHEET 1 OF 2
MFG. APPR.	AS	TITLE	SCALE
APPROVED	AS	BRACKET ASSEMBLY	1:2
DE APPR.	AS	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	07.10.24		